

L. B. MYERS.
 ROTARY CLIPPER.
 APPLICATION FILED MAY 8, 1918.

1,334,112.

Patented Mar. 16, 1920

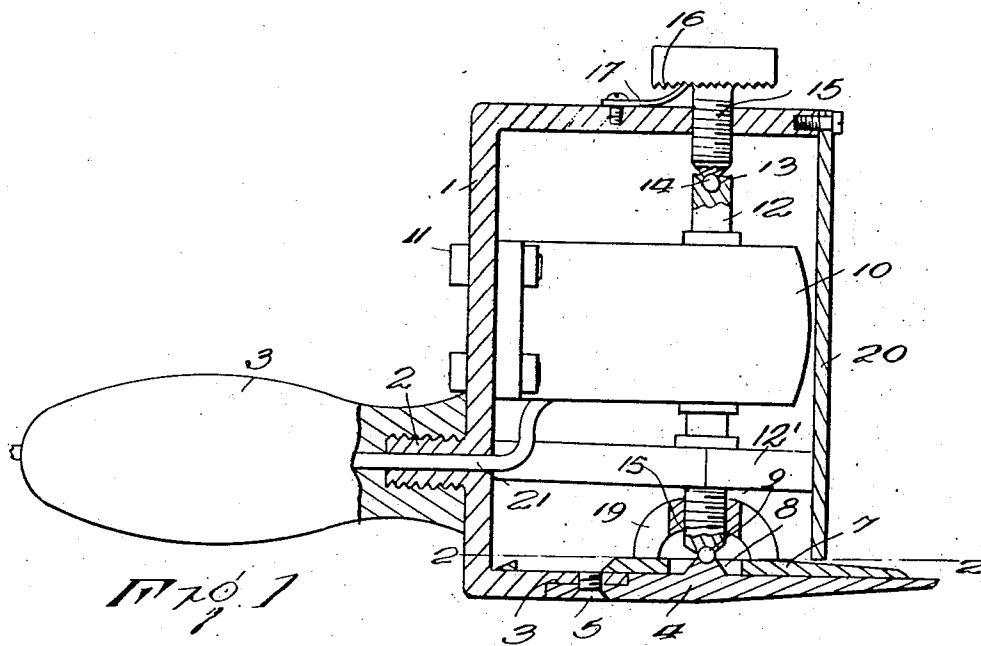


Fig. 2

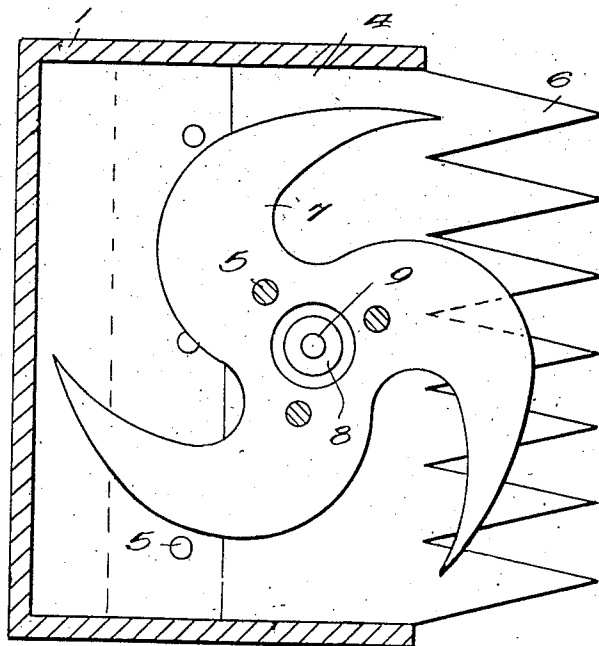
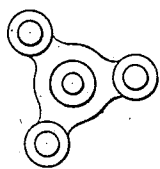


Fig. 3



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ROTARY CLIPPER.

1,334,112.

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To all whom it may concern:

Be it known that I, LESTER B. MYERS, a citizen of the United States, residing at Monte Vista, in the county of Rio Grande and State of Colorado, have invented certain new and useful Improvements in Rotary Clippers, of which the following is a specification.

This invention relates to improvements in clippers and it is the principal object of the invention to provide a motor operated clipper employing a rotatable knife supported in suitable anti-frictional bearings and having connections with the motor whereby to permit the transmission of rotary motion thereto.

Other objects will be in part obvious and in part pointed out hereinafter.

The improvements in the details and arrangement of parts will be apparent from an inspection of the accompanying drawings, in connection with the specific description hereinafter contained, and wherein the preferred embodiment of the invention is disclosed for the purpose of imparting a full understanding of the same.

In the drawings:

Figure 1 is a vertical section through the improved clipper,

Fig. 2 is a horizontal section therethrough, and

Fig. 3 is a detail in elevation of the connection between the drive shaft and the rotary blade.

Having more particular reference to the drawings, in connection with which like reference characters will designate corresponding parts throughout the several views, 1 represents the substantially U-shaped frame of the clipper construction, the same having a laterally extending screw threaded nipple 2 formed thereon and adapted to receive a handle 3, said handle having a longitudinally disposed bore formed therein communicating with the bore in said nipple 2 for a purpose hereinafter apparent. In this connection, it is to be noted that the lower portion of the frame 1 is of less length than the upper or top side thereof and is reduced or shouldered as at 3 to permit an immovable blade 4 to be secured thereto, said blade being apertured for receiving a plurality of screws 5 therethrough the threaded shanks of which are engaged in screw threaded openings formed in the adjacent portion of the reduced end 3 of the frame. As will be

noted, the cutting blade 4 is provided with the usual serrated cutting edge designated by the numeral 6 and between which the matter to be cut is passed.

Rotatably mounted on the upper face of the blade 4 is a rotatable multi-blade knife 7 having a concentrically located aperture which receives therethrough a boss 8 formed on the adjacent face of said blade 4, the upper end of the boss being formed with a seat for receiving a suitable anti-frictional bearing element 9 therein. As will be noted, the various blades of the rotatable knife 7 are so arranged as to move over the serrated cutting edge 6 of the immovable knife or blade 4 in sequential order, thus engaging and cutting the matter passing therebetween.

A motor 10 is secured to the rear portion of the frame 1 by bolts 11 or similar fastening devices which as will be noted are passed through the apertured flanges thereof and has its armature shaft 12 extended, the upper end of the same being cut as at 13 for receiving an anti-frictional bearing element 14, which element is in turn engaged by an adjustable screw threaded bearing 15 having the under side of the head thereof serrated as at 16 and engaged by a spring pawl 17 whereby to prevent reverse rotation of the same subsequently to adjustment. The lower end of the armature shaft 12 is cupped as at 18 and engaged with the anti-frictional bearing element 9, while the adjacent portion thereof is screw threaded and engaged with a screw threaded coupling element 19, the extremities of which are engaged in suitable openings formed in the central portion of the rotatable knife 7. Thus, it will be readily understood that a driving connection between the motor 10 and the rotatable knife 7 is effected. Attention is invited to the fact that clockwise rotation of the shaft will have a tendency to move the coupling 19 downwardly on account of the screw threads, thus preventing accidental release of the rotary knife during operation. Furthermore, when it is desired to remove the knife the coupling 19 has merely to be rotated in an opposite direction until the fingers thereof are disengaged from the apertures.

A closure plate 20 is secured to the forward portion of the frame and has the lower marginal portion thereof extended downwardly to a point in proximity to the rotatable knife 7 for an obvious purpose.

If desired, the conductors 21 for the motor

can be passed from the several terminals thereof through the nipple and the handle 3 into engagement with the source of energy, a suitable circuit closing means being interposed therein to control the passage of current to the motor.

In operation, the adjustable bearing 15 is properly adjusted with relation to the upper end of the armature shaft 12 and the motor 10 is then energized. Upon rotation of the armature shaft, rotary motion will be of course transmitted to the rotary knife 7 and as a consequence, the matter passing between the serrated cutting edge 6 of the immovable knife 4 will be severed thereby. The passage of the matter severed by the rotatable knife into the frame and the anti-frictional bearings provided the armature shaft 12 will be prevented due to the provision of the plate 20, the same serving as a form of guard or deflector.

Manifestly, the construction shown is capable of considerable modification and such modification as is within the scope of my claims, I consider within the spirit of my invention.

I claim:

1. In a clipper, a frame, a relatively stationary knife carried by the frame, a rotary knife bearing against the relatively stationary knife, a motor supported in the frame,

said motor including an armature shaft, for a bearing 4 of the shaft carried by the relatively stationary knife and extending axially through and spaced from the rotary knife, said rotary knife being provided with a series of apertures, and a coupling member movably secured to the terminal of the shaft provided with a series of fingers engaging in the apertures in the rotary knife for driving the latter.

2. In a clipper, a frame, a relatively stationary knife carried by the frame, a rotary knife bearing against the relatively stationary knife, a motor supported in the frame, said motor including an armature shaft having a screw threaded terminal, a bearing for the shaft carried by the relative stationary knife, and extending axially through and spaced from the rotary knife, said rotary knife being provided with a series of apertures, an internally screw threaded coupling member movably mounted on the screw threaded terminal of the shaft and tending to move downwardly on clockwise rotation of the shaft and on account of the action of the screw threads, and fingers on the coupling engaging in the apertures in the rotary knife whereby to drive the latter.

In testimony whereof, I affix my signature hereto.

LESTER B. MYERS.